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IN PART: i







THE UNIVERSITY OF ALBERTA

THE EFFECTS OF MOVEMENT EDUCATION ON THE  
SELF CONCEPTS OF GRADE SIX CHILDREN



by

John Leslie Duxbury

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
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THE UNIVERSITY OF ALBERTA  
FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and  
recommend to the Faculty of Graduate Studies and Research,  
for acceptance, a thesis entitled The Effects of Movement  
Education on the Self Concepts of Grade Six Children . . . .  
submitted by John Leslie Duxbury . . . . .  
in partial fulfilment of the requirements for the degree of  
Master of Education.





DEDICATION

To  
Joanna,  
Caroline and  
Michael Paul





## ABSTRACT

The central purpose of this study was to explore the effects of movement education on the self concepts of Grade six children.

Using Gagne's theory of learning, a scope and sequence chart was constructed, from which a unit in movement education was designed. The unit was examined by a panel of experts in the field of education. This unit was then taught to a group of Grade six children and the effects measured.

The self concept test used was a Q Sort developed by V. D. C. Bennett, which has two forms containing 26 statements each. The two forms have a correlation of .86 (d.f. 31).

The sample was limited to 36 Grade six children in one school, 18 of whom were assigned to the treatment group and 18 assigned to the control group. The groups were matched on the basis of pretest scores.

No significant differences were found between the means of the pretest and posttest for either the experimental or the control group, although there were some interesting changes in the frequency distribution of the raw scores for the treatment group, mainly towards the "not sure" category. This change in distribution was taken as an indication that the children were beginning to reassess and re-evaluate their self concepts.

As reflected by this study, it appears that movement



education may have an effect on self concept, but that it requires time and sufficient space in order to maximize its effects.

This study has identified certain related topics that may merit further study.





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## CHAPTER I

### STATEMENT OF THE PROBLEM

#### Introduction

In recent years there has been a great concentration of effort and study in the physical education field, in an attempt to bring the teaching of physical education more into line with the approaches to teaching adopted in other subjects. Physical education teachers are less the ex-Army drill sergeants, and more the educator, with an increased knowledge of teaching methods, the growth and developmental characteristics of children, and the individual skill components of the various aspects of physical education.

Perhaps the most important changes are those which have been made to the program and to the methods of teaching it. Aspects of elementary school physical education, such as callisthenics and vaulting (Olympic gymnastics), have been replaced by educational gymnastics. Games have been improved by applying the knowledge of growth and development characteristics of children to them. It became obvious that if skills were to improve, it was not desirable for young children to be playing an adult game and, as a result, game modification evolved and became widely accepted as a more efficient way of maximizing skill development.

Folk dance and country dance replaced marching, resulting in a completely different physical education program from that in effect in the 1940's. In 1969 an ad hoc committee was formed in Alberta to study the present secondary school physical education program and to undertake



the task of "conceptualizing" it. This represented a major step forward and re-emphasized the affective and cognitive domains in physical education. An evaluation of the pilot projects (published by the Alberta Government in March 1976) recommended that the conceptual approach be adopted, as it was apparent that this particular method accommodated all levels of ability more satisfactorily than the traditional approach.

Another aspect of physical education - creative or modern dance - added expressive movement to the functional and objective movement which was already included in the physical education curriculum. This particular aspect has had a widespread impact on physical education in particular and on education in general. Support for this claim comes from the fact that professors of other disciplines (e.g. Tucker, 1973) are advocating the use of creative movement as a means of teaching and supporting classroom subjects, particularly language arts. Experimentation and study has been conducted, observing the effects of dance on academic achievement, particularly reading and language (MacPherson, 1976). Moreover, psychologists have shown great interest in the effects of movement on the individual's personality.

It is with the area of personality that this thesis is concerned, more specifically it is concerned with the effect of movement education on the self concept of students.

In summation, the changes in the physical education program and the methods of teaching it, along with the interest generated by suggestions that aspects of the





physical education program, (particularly expressive movement), could be used as an aid in teaching other subjects, have served to bring physical education back into line with modern educational philosophy.

### Problem

The purpose of this study was to gather and examine information and data related to the self concepts of Grade six children and to determine the effect that movement education had upon their self concepts. The study took place in Edmonton, Alberta, Canada.

### Subsidiary Problems

- 1) To select a suitable learning theory and develop a set of lesson plans (in movement education) that showed sequencing and were hierarchical in nature.
- 2) To select a suitable test of self concept which allowed accurate measurement, was not too unwieldy, had two forms with a high correlation and could be used at the elementary level.

### Research Hypotheses

$H_0$  - Movement Education has no effect on student self concept.

$$\text{Mean A} = \text{Mean B}$$

$H_1$  - Movement Education has an effect on student self concept.

$$\text{Mean A} \neq \text{Mean B}$$

Where: A represents the experimental group, and

B represents the control group.

### Definition of Terms

Creative Dance: Dance is an activity in which "the physical self is coordinated and responsive to time, beat, and rhythm



in the main, and is more or less abstract in proportion to the amount of response to mood and atmosphere" (Way, 1967, p. 218).

Creative Drama: For the purpose of this study, the term creative drama shall denote an inventive process of solving specific dramatic situations without the use of percussive instruments, but with the use of properties (Goulding, 1970; Way, 1967).

Dance Drama: Is an activity in which "there is fuller use of character, mood, atmosphere, and conflict at the same time as the full physical self is used in response to beat and rhythm" (Way, 1967, p. 218).

Educational Gymnastics: Denotes the approach to gymnastics which is child centred and individualized (Morison, 1969).

Hierarchy: Denotes a structure which is organized in terms of importance or difficulty, with the most difficult at the top and the least difficult at the bottom. It is also used to denote the relative levels of learning ranging from highest to lowest (in order) (Gagne, 1970).

Movement Education: "Is a means of achieving body management through an understanding of movement factors and the ways in which they affect the body in motion. In this case, body management refers to the control of the body as it moves." (Willgoose, 1974, p. 205)

Q Sort: For the purpose of this study, the term Q Sort denotes a device for testing self concept, where prepared statements are sorted into categories on a continuum ranging from "most like me" at one extreme to "least like me" at the



other (Bennett, 1964).

Self Concept: Is "that process by which the person conceptualizes (or categorizes) his behaviour - both his external conduct and his internal states" (Gergen, 1971, pp. 22-23). By internal states, Gergen means the inner feelings which may be regarded as the driving force behind external conduct (behaviour). The important point here is that Gergen refers to the mind-body link.

#### Limitations and Delimitations

The study was limited in the following ways:

- 1) The validity of the Q Sort which was dependent on the ability of students to identify prepared statements resembling their own feelings (reading ability was assumed, since the statements were designed for use in Grade 3 and up).
- 2) The closed nature of the Q Sort in that prepared statements were presented to the respondent, who placed them into fixed categories.
- 3) The fact that although the Q Sort was assumed to include all facets of self concept; this may not have been the case, however, and some facets may have been overlooked or left out. Bennett left some statements out of the original list, because her panel of experts in psychology failed to agree on the "adequacy" or "inadequacy" of the statement.
- 4) The fact that the Q Sort is comprised of statements from adult self concept tests and rewritten by Bennett for elementary school children. Some of the accuracy





(sensitivity) may have been lost in the rewriting.

- 5) The correlation between Forms 1 and 2 pretest/posttest, two parallel forms (Appendix A), of the Q Sort.
- 6) The length of time the students were exposed to movement education, since effecting a change in self concept may be a lengthy process.
- 7) The fact that in elementary school children self concept is in a process of continual change (Therrien, 1969). This particular point does not necessarily invalidate the study in that the experimental design controls for invalidity due to maturity in the students and it is this change resulting from maturation to which Therrien refers.

#### Need for the Study

There is an abundance of written material about the benefits of movement education, particularly creative dance and creative drama. Joyce Boorman of the University of Alberta writes:

"... the physical, emotional and intellectual life of the child is so integrated that dance, which provides for the cohesion of all these factors into one experience, is concerning itself primarily with the child as a doing, feeling, being, a creative personality."

(Boorman, 1970, p. 3)

Boorman makes many statements here, all of which tend to be representative of internalized feelings, for example "a creative personality". If these feelings are internalized, then logically they must affect the student's self perception. If a student's self perception is affected then these changes in self perception must logically manifest



themselves in the child's self concept.

David Tucker (also of the University of Alberta) states that:

"If a child can learn that even the slightest change of body parts creates numerous new shapes, he becomes more interested and appreciative of his physical world and how it realistically relates to a healthy self concept."

(Tucker, 1973, p. 5)

These two writers contend that movement education is not only a natural part of a child's education, but should be actively encouraged in children in order that a child's education should be meaningful, rich and complete.

Brian Way (1967) feels that human development can be regarded as a circle with many points or facets of personality, each of which is a valid point to start from, particularly from the point of view of drama and dance drama, and Barsch (1967) sees the child as a "terranaunt" moving within a self perceived space world.

Valerie Preston (1963) suggests that mimetic group action develops a feeling for other people, and is supported by Bauer, who claims that movement experiences cause children to become more tolerant, courteous and cooperative (1952), while Yardley contends that to assume a certain style of movement can affect the way we feel about ourselves and life and may contribute toward developing poise and confidence (1970). These claims are particularly important as self concept may be regarded as having two basic facets, "how I see myself" and "how I think others see me".

It appears then that movement education does affect



self concept, although none of the above writers quote empirical research to prove it. Empirical evidence may, however, serve to support the intuitive logic of the observations of experts and lend further credibility to their postulations.

Gergen (1971) claims that theorists in the mental health field argue that a sense of identity (self concept) is more crucial than any concept in Freudian theory; he also suggests that in problems of social interaction, the individual is aided through developing concepts of self.

Psychologists like Rogers (1951) and Maslow (1962) recognize the need for a positive self regard and are supported by Mead (1925) and Purkey (1970) who also warn of the "self fulfilling prophesy" and the "mirror self", where self concepts are products of how others see the individual.

Finally, Carlton (1966), Moore (1968) and Diller (1954) state that self concept is a vital influence in improving academic performance.

In summation, it appears that a great many writers believe that movement (education) enhances self concept, but fail to document it; it also appears that an even greater number of writers believe that self concept is vital to the educational fulfilment of the child. It is these two facets which reinforce the need for a study such as this, a study which will document the effect of movement education on student self concept.

If we are to "... assist each child in some way toward





self realization and discovery ..." (Sande, 1970, p. 2), we must know the effects of movement education and be able to measure the effects with a valid and reliable yardstick.



## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

This study is concerned with the effects of movement education on the self concept of Grade 6 children. The review of the literature is reported below under three headings:

- 1) Self concept,
- 2) Movement education, and
- 3) Summary.

#### Self Concept

Until the 20th century a general state of confusion existed in regard to the concept of self (Purkey, 1970), and although Freud stated as early as 1900 that the self had three facets: biological, environmental, and social, little other attention was devoted to the subject until Jung (1958) added a fourth aspect to Freud's theory of Self. For Jung not only is the self affected by biological factors, environmental factors, and social factors, but is also affected by aspirations for the future. In 1954 Hall and Lindzey cited Jung's belief that a person's attitudes or expectations of the future affect behaviour, and added a further dimension by suggesting that past experiences were also influential.

However, it has not been until quite recently that psychologists began to look very closely at what exactly self concept is. In fact as late as 1970 Purkey wrote "... The self has received scant attention" (p. 4).

Even now the literature on self concept tends to be



both confusing and inconclusive; some authors use terms like "body image", "self awareness", "self image" and even "personality" synonymously with the term "self concept", while others use them to mean entirely different, although related, things. Therefore, for the purpose of clarity, the writer will use only the term self concept, where applicable, except where the use of direct quotations prohibits the inclusion.

There are several common aspects of self concept which are generally recognized and included in the definitions of the respective authors and theorists. For a more pointed focus, this section of the review of the literature has been subdivided into sections dealing with: the definitions of self concept; why concepts of self; components of self; development of self concept; and changes in self concept. These aspects were chosen as it was felt that they were particularly relevant to the study.

#### Definitions of Self Concept

Many authors support James (1950) in claiming that there is both an objective and a subjective self which together comprise the self concept (Freud, 1900; Brim and Wheeler, 1968; Jung, 1939; Snygg and Combs, 1949). There is also significant support for James' claim that the self is conscious and that it can be affected by social interaction (Horney, 1939; Mead, 1956; Sullivan, 1947). His (James') belief that memory is vital is supported by Bertocci (1945), Mead (1956), and Sullivan (1947), who also believe that regarding the self as a process implies two parts: the





subjective self (I) and the objective self (me).

Horney (1939), like Freud and Jung, believes that early impressions are lasting and that the socio-cultural environment also affects the self concept. Sullivan (1947) agrees with Freud, Jung and Horney, and believes that social interaction affects self concept, and he further believes that it affects self concept in two ways: it provides the mechanism by which self concept can develop, and it affects the content of one's appraisal. Sullivan (1947) also believes that the self may be made up of "reflected appraisals". Mead (1948) supports this claim that social interaction provides the mechanism by which an individual becomes aware of himself as an individual, and goes on to say that the self is actually a conscious process and is essentially a social structure which has its base in social experience.

"The self is not so much a substance as a process, in which the conversation of gestures has been internalized within an organic form." (p. 178)

Mead's view of self agrees with the view held by Freud (1900), James (1950), and Sullivan (1947).

It would seem that self concept is dynamic and it is a process. By dynamic the writer means that the self concept "screens out" information which is not consistent with the self concept at that particular time; for example, if a child regards himself as an excellent soccer player, every time he misses the ball it is attributed to "bad luck" or some other external cause, rather than modifying the concept of self as an excellent soccer player. However, if he continues



consistently to miss the ball, his concept of himself may be revised. Defining the self as a process implies that the concept of self does not suddenly appear, but develops as a result of experiences or changing environment. The concept of self may be in a process of continual change, especially for school children who are maturing all the time.

With these components in mind, the definition put forward by LaBenne and Greene (1969), (who drew on the work of many theorists, such as Jersild, 1952, and Snygg and Combs, 1949), appears to be appropriate. LaBenne and Greene define self concept as:

"... The person's total appraisal of his appearance, background and origins, abilities and resources, attitudes and feelings, which culminate in a directing force in behavior." (p. 47)

#### Why Concepts of Self?

The need for a positive self concept is supported by many educators, psychologists, psychoanalysts and psychotherapists, including Rogers (1956), Van Huss et al (1969), Wessel (1970) and Yamamoto (1972), to name but a few.

Van Huss (1969) stated that the knowledge of and insight into self is essential for a positive state of both physical and mental health and that the self image was the self one thinks himself to be and that it is the most complete description of oneself at any given moment. Many psychologists have also found significant relationships between a person's self concept and a physical self concept (Wessel, 1970; Yamamoto, 1972; Zion, 1955).

Gergen (1971) writes that the individual should "know



himself"; in fact, theorists such as Gergen argue that, in the mental health field, a concept of self and a very clear idea of the individual's own strengths and weaknesses is more crucial than any concept in Freudian tradition. This position is supported by Rogers (1951) and Snygg and Combs (1949, 1959), who believe that the maintenance and enhancement of the perceived self is the motive behind all behaviour.

"The self is the individual's basic frame of reference, the central core." (p. 146)

It follows then that the more positive the individual's self concept, the more positive will be his view of the world. Moreover, in cases of problems of social interaction, the individual assesses and revises his concept of self and, therefore, a positive concept of self is essential before any revision or assessment takes place. For example, the child who is rejected by a group he has just approached will not feel nearly as hurt if he has been accepted by other groups in the past, and feels that he is of some worth. On the other hand, if the child has been rejected by other groups previously, and generally feels he is not of worth, then the effect of this rejection can be devastating. Revision and reassessment of the self concept in this case merely confirms that nobody wants him and that he is unworthy. Whereas, for the child in the first case, the rejection is merely a minor setback, in that revision and reassessment of his self concept shows that he is still of worth, even if this particular group rejected his requests to play or join them.





Secondly, self conception is valuable in allowing the individual to form generalizations about himself that persist over time (Gergen, 1971). Efficiency of operation in social contexts is increased through the availability of self concept; in fact, perception of the value of categorizing information regarding the self may encourage the individual to develop a set of concepts of self. Gergen also believes that an individual may develop a self concept in order to avoid anxiety; this anxiety avoidance is effected by "screening" information which is in conflict with the concept of self held by the individual. Fromm (1939) and Rogers (1956) state that the greater the functional value of a particular self concept, the greater the appreciation of positive appraisal.

Purkey (1970), in speaking of the "self fulfilling prophesy" and the "mirror self" (p. 41), is basically saying that an individual's self concept is the product of how others see him. This position is supported by Jersild (1952), Rogers (1947), and Snygg and Combs (1959). Grosse and Becherer (1975) also agree with Purkey and add that the self confidence of a student grows as he begins to receive group acceptance. Lecky (1969) believes the human organism is concerned with the protection and development of the self concept rather than the physical self.

"The basic purpose of all human activity is the protection, the maintenance, and the enhancement not of the self, but of the self concept ..."

(cited by Yamamoto, 1972, p. 7)

Yamamoto supports Lecky and adds that the individual only





develops into a social being by virtue of the guiding influence of his self concept. He also points out that because of this a positive self concept is extremely important, as it enables a child to develop into a consistent well-rounded mature individual who benefits from both successes and mistakes without feeling inferior because of the mistakes.

"... the young child manages to develop into a social yet individual being, for his self concept serves as a guide for action and helps to keep the pattern of dynamic growth reasonably consistent, unified and purposive." (p. 6)

The implication of Yamamoto's claim is of great concern to educators. In fact with regard to education, Yamamoto writes that:

"One of our crucial tasks is to see to it that a profound sense of respect for the self be fostered in the young and that the willingness to accept the self be nurtured." (p. 25)

### Components of Self

Based on the belief that an individual belongs to a variety of social groups, and that the attitudes of each can be internalized, Mead (1956) hypothesizes that a person's self concept is made up of a number of self concepts (e.g. the concept of self as a good soccer player, but a poor mathematician). Mead also cites Bruner who recognized three methods of representing the self: the enactive mode, ikonic mode and symbolic mode. James (1950) believes that the self concept is comprised of spiritual, material and social aspects, thus the self contains subjective interpretations and feelings. Support for Mead comes from Adler (1956) who



says that the self is partly determined by self perception, and Wessel (1970) who states that self concept is composed of many parts, each of which has a hierarchy of traits or behaviours (some of greater value than others to the individual).

Since an individual's concept of self may differ greatly with objective fact and the observation of others and since Piers and Harris (1964) found that physical appearance and attributes ranked as one of the most important contributions to the self concept, the physical image is an important aspect or component of self concept. The importance of the physical image is also discussed by Van Huss et al (1969) who, in supporting Piers and Harris, point out that the physical image is not only the mental image of one's body during activity and inactivity, but also what one thinks others think the physical image is.

#### Development of Self Concept

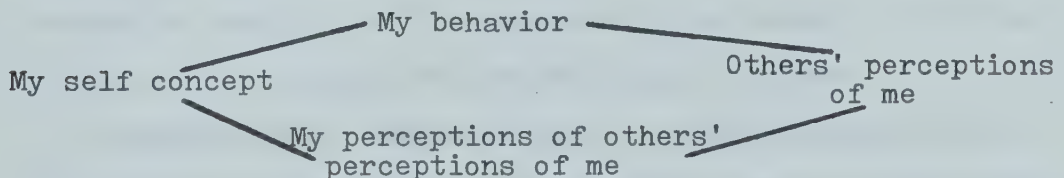
The definitions of self concept stated earlier indicate that self concept is a dynamic process, therefore, since self concept itself is continually being modified, one is forced to conclude that development, maintenance and enhancement of self concept is also a perpetual process. Allport (1937) claims that, until the child is three years old, he has only a knowledge of bodily self: this then forms his self concept. However, as his language develops, the self is enhanced to incorporate my and mine. Upon entering school, the self concept is made up of "reflected appraisals".



The experience of school induces the concept of the self as a "rational copier". In adolescence, the child develops the last aspect of self concept - selection of goals and the means of achieving them. Allport calls this "proprie striving", which he claims unifies the other aspects of self into a stable, fully developed self concept.

The self concept of a child develops with maturation, and as a product of social interaction (Horney, 1945; Lecky, 1945; Mead, 1956; Sullivan, 1947). As the child matures, the home plays an important part in the development of his self concept, because he (the child) is exposed to the home for the majority of his time (Overstreet, 1954). "Significant others" also affect the individual's developing self concept depending upon how the child perceives their (significant others') reactions to him. Wessel (1950) and Felsenthal (1972) state that one of the first effects of significant others upon the self concept of a child is in the attitude shown towards the physical attributes of the child.

Brookover (1965) sees the development of self concept as being circular in effect; his model is included here:



Rogers (1947) says each concept has a negative or positive value; if an ability is highly valued, a failure of that ability lowers the esteem, success of that ability raises the esteem. Snygg and Combs (1959) support Rogers by





saying that in the process of maintaining his self concept, the child rejects or distorts those concepts or ideas that do not agree with the self image. Whereas those concepts that are relevant or agree with the self image are absorbed easily by the child.

### Changes in Self Concept

According to the literature, many theorists believe that changes in self concept, while difficult, are not impossible; this position is supported by theorists like Allport (1961), and Rudikoff in Rogers and Dymond (1954). Van Huss et al (1969) believe the concept of self is constantly changing

"... like the stonecarver's sculptured piece, where the chisel marks are never fully erased, so is the development of the self image. Every personal experience, emotional, social and physical has some moulding effect on it." (p. 9)

Cohen (1959) also believes that changes in self concept are possible and points out that a low esteem has nothing to lose and may even long to be remoulded for the better; he also believes that people aspire to do that which will yield success and avoid activities which may mean failure. Self concept is central to this process in two ways: for esteem needs, and in gauging the probability of success.

Kephart (1968) suggests that trampolining may improve the physical concept of self, as weightlessness leads to an increased awareness of the three axes of body movement. Kephart also cites Clifton and Smith as illustrating that perceptions of the performing self may undergo change well past childhood. Further support for the claim that changes



in self concept are possible come from a study done by Gergen and Taylor (1969), who found that "regardless of rank, subjects in a productivity setting became more positive about themselves" (Gergen, 1971, p. 85).

Gergen (1971) also believes that the increased multiplicity of social life precludes the possibility of fixed self concepts and that self alienation may be caused by:

- 1) inconsistency between roles and self conception;
- 2) behavior violating identity aspirations; and 3) behavior unrelated to the person's most salient ways of knowing himself (p. 88).

Brookover et al (1965), Coopersmith (1967), and Thomas (1966) all state quite adamantly that the behavior of significant others can effect changes in self concept. Carlton and Moore (1966, 1968) support Gergen (1971) and Van Huss et al (1969) by claiming that successful performance heightens self esteem, while failure or lower performance lowers self esteem. This position was also held by Diller (1954). Carlton and Moore and Diller also believe that the changes were relatively permanent.

Cohen (1958) and Thomas and Burdich (1954) state that an individual's self concept is strongly related to the pressure he exerts on others. Good self concept is, therefore, strongly related to an individual's social power, while poor self concept is related to the acceptance of influence attempts by others. This was supported by Lesser and Abelson (1959).

Finally, Therrien (1969) states:



"Human behavior appears to be consistent and unified. Most of an individual's behavior, overt or covert, is consistent with his concept of himself." (p. 46)

The reasons given are

- "1) the self concept focuses perception such that only those experiences which are consistent with the self are admitted to awareness;
- 2) the self, whose goal is to grow while maintaining its own structure, chooses the means for achieving the goals within the environment as it is perceived." (pp. 46-47)

### Movement Education

In the literature on self concept, the basic agreement between psychologists and educators was that movement had a very definite influence on the individual's perceptions of himself and of others. Educators, however, placed the emphasis on a developmental approach to movement, rather than the therapeutic effects of it.

Movement education is a relatively new and dynamic phenomenon, and the literature available under the general topic "Movement Education" is not extensive, but may appropriately be studied through investigating the following subtopics: definitions of movement education; body awareness and movement education; movement education - implications for education; maximizing the effects of movement education; therapeutic effects of movement education; and movement education - its effect on self concept.

### Definitions of Movement Education

Defining movement education is difficult because the term means different things to different people. For North (1973) movement is an art form where movement goes:





"... beyond personal expression, it helps the participant to form his ideas, feelings and sensations into a disciplined wholeness, where symbolic actions become the vehicle of expression and transforms what is purely personal into something beyond the initial improvisation." (p. 244)

For others such as Dauer (1975), the term movement education is synonymous with physical education, while for others (Willgoose, 1974), the term is synonymous with movement training.

As early as 1950, Laban recognized that movement had always been used for two distinct aims: a) the attainment of tangible value in all kinds of work, and b) the approach to intangible value in prayer and worship (p. 4). In other words, movement is either expressive or functional, or both. Laban's work has also been invaluable to the study of movement; although his original studies were meant for stage productions, his categories of effort qualities into which all movement must fall (space, weight, time and flow) have been widely used in recent years by physical educators, because they allow expansion and enrichment of the normal movement range of children.

In recent years physical educators have also begun considering whether or not track and field activities or team games should also be included in movement education. The reasoning behind the discussion is that the type of movement involvement in those activities is objective, and that to offer a balanced program children should experience expressive movement (dance), and functional movement or objective movement (gymnastics and games).





With this diversity of opinions, the definition offered by Willgoose (1974) was chosen as being most appropriate, particularly for the purposes of this study. Willgoose's definition allows for expressive, functional, and objective movement, that is, it includes creative dance, dance drama, creative drama, mime, pantomime, educational gymnastics, and track and field. Willgoose defines movement education as:

"... a means of achieving body management through an understanding of movement factors and the ways in which they affect the body in motion. In this case body management refers to the control of the body as it moves." (p. 205)

### Body Awareness and Movement

Many of the previously cited authors support the fact that movement develops body awareness, and it seems logical therefore to conclude that, through being aware of one's body, one may effect changes in the physical image, which is a vital aspect of the self concept.

In supporting the "self concept - body awareness" link, Fisher (1973) quoted the following results from one of his experiments:

"Students were asked to estimate their height both before and after taking an examination. One segment were told that they had failed the examination and another that they had done well. Those who thought they had failed perceived themselves as shorter in the post-examination judgments. This was not true of those who were told they had done well. Those with a sense of having done poorly registered their impression in body shrinkage ... people who have prominent symptoms of depression and unworthiness are likely to portray themselves as small." (p. 112)

It would seem then that not only can feelings of success or failure influence our image of our physical self, but that our physical self may in fact influence our feelings of



success or failure. These feelings are particularly important when one considers that Cooley (1968), James (1950), Jersild (1952), LaBenne and Greene (1969), Mead (1934, 1956), Rogers (1951), and Wylie (1961) all recognize that there is a very definite need for a positive self image.

### Movement - Implications for Education

Much has been written about the value of education through movement (Tucker, 1973; North, 1971): the development of individual and personal capacities (Preston, 1963; Morison, 1964); the increasing social awareness; the role playing and practice in the group situation (Yardley, 1970); the increasing poise and confidence gained through self-mastery and awareness of one's body image (Ward, 1952).

Fisher (1973) found positive correlations consistently between degree of body awareness and amount of interest in artistic and aesthetic matters; he also cited a recent study which indicated that children who were made more familiar with the spatial dimensions of their bodies improved in their ability to make spatial discriminations in other non-body situations.

North (1973) claims there is a high level of correlation between measured I.Q., personality traits, and movement capacity and concludes therefore that movement ability is more than a measurable or practical activity. Yardley (1970), like North, believes that the young child's boundless physical energy must find expression in movement, as movement increases experience and the child needs to understand



movement so that it (movement) can be a communicative device and thus facilitate expression of experience.

Russell (1968) supports Yardley and, in discussing Froebal's principles, states that schools should train children in cooperative and mutually helpful living and that the main source of educational activity is in the instructive impulsive attitudes and activities of the child, and not in presentation and application of external material. It would appear then that the school has a definite part to play in the development of the child's self concept or body awareness.

Cognitive functions are both highly dependent on and result in a wider range of movement capacities (North, 1970); in fact, Russell (1968) claims that Einstein's thinking occurred in optical and kinesthetic images of movement. For Freud, thinking was an experimental action with only a slight expenditure of energy (Hall and Lindzey, 1957), and Piaget believed that cognition started at the sensory motor level (Hall and Lindzey, 1957). It would seem then that these authors regard movement and thought as being interdependent. If one accepts that cognition is interdependent with complex movement patterns and combinations, one is forced to ask the question: could refined observation of movement allow us to see the whole area of intelligence and cognition in a clearer light, and clarify those personality traits which are already claimed to be discernible through movement?

Laban (1950) states that in the teaching of children and the initiation of adolescents to adulthood "primitive man endeavoured to convey moral and ethical standards through





the development of effort thinking in dancing" (p. 19).

Laban also claimed that human effort is rarely taken into full consideration when speaking of movement study and training.

"But nevertheless it is a most important manifestation and perhaps the very source of the possibility of movement education, which is of paramount importance not only to the actor-dancer, but also to every individual's self development." (p. 15)

### Maximizing the Effects of Movement Education

In order to maximize the effects of movement education, several factors need to be considered: quality of movement; time allotted to movement education, i.e. length and frequency of lessons; scheduling movement education lessons; and space available for movement education.

Perhaps the most important consideration in maximizing the effects of movement education is that of stressing the quality of movement. Cope (1967) feels that having revised and extended the movement experience, the next step is to widen understanding of the action of moving. He goes on to say that merely accomplishing the task is not sufficient, and that it is the teacher's prime responsibility to develop quality of performance by stressing and developing the motion factors: weight, space, time and flow. Dauer and Pangrazi (1975) lend support to Cope's claims, by stating that:

"Establishing quality is the vital part of movement education. Without this aspect, movement is mere activity." (p. 134)

The time allotted to movement education is also a vital



factor in maximizing its effects. It is generally agreed that elementary children should have between 30 and 35 minutes of activity time per day (Dauer, 1975; Willgoose, 1974). What is not discussed by most authors is how much time should be allocated to movement education. Willgoose (1974) cites Voltmar and Esslinger as recommending 50% of the physical education time to be devoted to movement experience in Grade 1, 40% of the time in Grade 2, 30% of the time in Grade 3, dropping to 15% of the time for boys and 35% of the time for girls in Grade 6. It is interesting to note that Voltmar and Esslinger recommend more time for the girls from Grades 4 to 6.

Dauer and Pangrazi (1971), however, recommend a straight 20% of the time for both boys and girls in Grades 4 to 6. There appears to be a slight variation in the recommended time and, while it may seem that a few lessons may not make any difference, it is as well to remember that "the scope and success of any program in education is contingent to a considerable degree upon the time allotment provided" (Havel, 1961, p. 176).

When considering the problems of scheduling movement education lessons, one is faced with a selection from three alternatives:

Blocking which entails teaching a single unit for a length of time until the unit is complete, and to the exclusion of other units.

Partial blocking, which entails teaching two units, and alternating between the two units.



Combined unit planning, which entails teaching several units, and teaching one lesson from each unit before teaching the second lesson from any unit. (Havel, 1961)

The literature does not indicate which method (if any) is the best and merely suggests that the decision is left to the individual preference of the teacher. However, caution must be exercised by the teacher to ensure that each unit proceeds in a sequential fashion, "building upon past knowledge and working towards further and more advanced proficiency" (Havel, 1961, p. 192). With combined unit planning, the need for each lesson to be a self-contained unit becomes crucial, so that the children do not have to remember partially completed sequences or partially understood concepts for the next lesson which may be two or more weeks away. The danger with blocking is that the units get too long and time consuming, resulting in boredom on the part of the children.

The question of the amount of space required to teach movement education is also a frustrating one. Few authors consider space requirements except when dealing with gymnasias, and then they deal with various specifications and dimensions for different school sizes. Bucher (1967) goes into this aspect a little deeper, however, and specifies that for the health/science instructional facilities, there should be 35 square feet of area per pupil and a maximum of 30 pupils per class. The writer feels it is reasonable to assume that, if 35 square feet are required for teaching health and science, the same amount of space would be





inappropriate for the teaching of movement education. This assumption is supported by Dauer and Pangrazi (1975) who state that:

"This is an emergency situation, when the physical education lesson must be taught in the classroom, or related facility because the usual facility is not available." (p. 398)

Dauer and Pangrazi also discuss the type of lesson that is most suitable for these conditions and suggest that the rugged or active program is not suitable, and that selected "manipulative equipment, rhythmic activities, and movement experiences should be considered" (p. 205). In referring to these selected activities, they warn that the children and the teacher "should realize and accept the limitations of classroom physical education" (p. 205).

To conclude, then, in order to maximize the effects of movement education, it seems that an adequate amount of time must be devoted to it, an adequate amount of space must be made available for it, and the quality of performance must be stressed as well as the movement experience.

#### Therapeutic Effects of Movement

Many writers have described the therapeutic effects of movement, mostly psychotherapists. However, educators, especially those who are dealing with handicapped or retarded children, also write of the benefits.

Schoop (1974) asks the question, "Isn't anyone's state of mind constantly expressed by his body? And vice versa, doesn't anyone's body-experience influence his state of mind?" (p. 40). It seems that through the body man's mind



experiences the real world. His senses inform him of his very existence; the senses of sight, sound, smell, taste and touch stimulate his mental processes, telling him not only who he is but how he is and where he is.

Further support for the therapeutic effects of movement comes from Rosen (1957) who believes that therapeutic dance, which is creative dance presented in such a way as to maximize either the physical or the emotional effects, is both free and spontaneous: "... the emphasis in therapeutic dance is on spontaneous response as a direct form of social communication" (p. 46).

The self concept - body link gets further support from several writers who believe that movement betrays the way a person feels (Collingwood as cited by North, 1973; Lowen, 1967; North, 1971, 1973; Russell, 1968; and Schoop, 1974). A hearty slap, wringing a handkerchief, stamping the feet: all betray inner feelings. In fact people like Sheldon (1942) and Parnell (1958) have successfully used movement characteristics to "type" normal people. Movement is in essence a language, conveying by continual and secret messages, the real personality. Burt (1967), in highlighting the need for research into the relationship between movement and personality states that the experience of experts supports this relationship. Bauer (1950) lends further support and claims that the feeling of freedom in dancing causes children to become more tolerant, courteous and cooperative. This position is supported by Yardley (1970), who states that movement can develop poise, confidence and control acquisition.



In supporting her claim for movement education in the schools, Russell (1968) states that the whole universe is in constant motion and that we live in it. Groups help one to experience moods, and to be responsive to the moods of others; in groups, varying efforts, shapes and rhythms cannot be achieved by individuals, therefore dependency on others is cultivated (Russell, 1968).

To conclude, North (1973) points out that the effectiveness of teaching and therapeutic work depends on sufficient knowledge and experience in the medium, together with an understanding of the relationships which exist between personality and movement.

#### Movement Education - Its Effect on Self Concept

The majority of psychologists and educators reviewed believe that change in self concept is possible, albeit somewhat difficult. Ward (1957) found that movement - dance drama - pantomime developed self confidence, self concept and relationships of remedial children by catering for each individual's strong point, i.e. desire for leadership, lightness on feet, etc. (p. 4). She also concluded that it reduced hatred (by building relationships) and gave a sense of belonging. Fisher (1974) documents the effect of spatial influence on imagination by stating that:

"... people tell different kinds of imaginative stories when they are lying down and when they are sitting up. One could say that simply altering the position of a person's body in space can influence the way in which he uses his imagination." (p. 17)

North (1971) claims that, as music, poetry, painting





use sound, words, and colours to formulate experiences, so movement, the primary, most elementary, most primitive medium can be used - either for individual or group formulation. She refers to the "linking of the inner being and the outer form" (p. x). She also states that the chief aim of movement education is learning to know one's body, and that this knowledge contributes to a sense of self, that is, an awareness of oneself achieving a body image, which is vital to the development of children. Support for North's belief that movement involves the whole person, physical, emotional, and intellectual, comes from Russell (1968) who also believes that the individual's intuitive aspects are brought into play.

Yardley (1970), as previously cited, also asserts that to assume a certain style of movement can affect the way we feel about ourselves and life. She claims that exploration (in movement) builds up an image of the body, providing the individual with a means of orientating himself in space and relating himself to objects and people around. Yardley further claims that movement expresses emotion and states that aggressive children have a higher self concept than withdrawn children.

Finally, Preston (1963), who was reviewed earlier, also upholds the idea that movement affects self concept by suggesting that creative dance affects self perception in the light of the perception of others. "Mimetic group action develops a feeling for other people" (p. 121). In fact, one of her themes in dance is the awakening of group feeling.





The fact that a change in self concept is the result of a lengthy, time consuming process is supported by Way (1970) who states that development is the result of consistency and, though at first intangible, becomes visible after an extended program. He adds that "Mastery of the body produces an emotional harmony regarding their bodies" (p. 12). Schoop (1974) agrees with Way that movement has a beneficial effect on self concept; however, her immediate concern, in dealings with mental patients,

"... is to revive the body's talent to enjoy itself, to attempt to heal the emotional wound by inducing in the person a new and positive feeling about his physical self." (p. 78)

To conclude, Laban (1950) suggests that for real understanding of the inner workings of the human being, movement needs the developing process, the sequence of action and the qualitative (non-measurable) aspects of movement, effort being his chosen term. He also summarizes succinctly when he states that

"... movement evidently reveals many different things ... the shapes and rhythms show the moving person's attitude in a particular situation. It can characterize momentary mood and reaction as well as constant features of personality." (p. 2)

The point that Laban is making is that movement reveals not only an individual's disposition at a particular instant in time (or his reaction to a given set of stimuli), but also his characteristic or usual disposition.

#### Summary

In summation, it appears that defining the construct of self is extremely difficult, and that each theorist defines



self according to his beliefs, and the model of personality he holds. Despite the inconsistencies and the different meanings attached to terms like "body image", one may conclude that the self concept is conscious and that the self is both subjective (I) and objective (me) (Sullivan, 1947). This dual role of "self" implies that the self is a process and is, therefore, dynamic. The literature suggests that the apparent relationships between movement, intelligence and personality is too great to be fortuitous, and that the effect of movement experiences on self concept would be considerable.

Finally, the definition by Willgoose (1974) was adopted as portraying most effectively what movement education is within the scope of this study.



## CHAPTER III

### METHODS AND PROCEDURES

The experimental design chosen was a mixed design, since this type of design controls all sources of internal invalidity.

#### Selection of Sample

The school was selected on the basis of interest in the study (provided the school had two grade 6 classes). Several schools were contacted until the experimenter found a school where a grade 6 teacher was willing to teach the unit, and where the school was prepared to mix the classes in order to match assign groups.

The writer was aware of the fact that mixing the classes might create problems of socialization; however, this procedure is an integral part of the experimental design.

Fifty four grade 6 children (both classes) were simultaneously given the first form of a self concept Q Sort as a pretest. On the basis of the pretest scores, all subjects, regardless of their home classroom, were matched into pairs. One member of each pair was then randomly assigned to the treatment group. The unassigned pupils constituted the control group.

After the treatment period, both groups were simultaneously given the posttest. This procedure can be represented symbolically as follows:

Group A	Pretest	-	Treatment	-	Posttest
Group B	Pretest	-	No Treatment	-	Posttest





## Test Instruments

The test for self concept was a Q Sort developed by Virginia D. C. Bennett. The test has two forms (see Appendix A), which were tested on 32 grade 6 children and the rank order correlation between the two forms on the basis of performance of these subjects was .86 (d.f. 31).

Bennett (1964) derived the statements for her self concept Q Sort from Hilden's (1954) self concept Q Sort manual, and a self concept Q Sort developed by Butler and Haigh.

"The statements are primarily modifications of both the Hilden, and the Butler and Haigh statements, adapted so that the reading level does not exceed that of the third grade."  
(Bennett, 1964, p. 21)

The Q Sort technique was chosen to evaluate the self concept of students as Bennett found that children did not feel threatened and actually enjoyed it. This particular test is also extremely well designed for measuring the objective self concept (me versus not me).

The Q Sort is an invaluable instrument for the study of self perceptions (Kleinmuntz, 1967; Bennett, 1969). Moreover, Kleinmuntz (1967), Edwards and Horst (1953), and Kogan et al (1957), as cited in Edwards (1957), have stated that the Q Sort statements related to personality correlated positively .89 with the social desirability scale in their experiments. This position is also supported by Weiner et al (1959).

The most common criticism, according to Cattell (1965), levelled at the Q Sort is that the scores are ipsative (each person's scores are distributed around his average);



therefore analysis of scores or ratings is meaningful only when interpreted in terms of the individual's own performance on previous Q Sorts. This position is supported by Guildford (1959), who found that the averages of ipsative scores among persons tend to be the same (for different subjects).

The Q Sort has the distinct advantage over other methods of testing self concept, in that it does not depend upon the individual's ability to express himself clearly. The fact that a Q Sort involves a forced sorting of fixed statements into set cells makes it an extremely powerful tool for evaluating self concept (Bennett, 1969).

Cronbach (1953) points out that

"... the Q Sort because of its forced choice and weighing of cells, is a powerful method and a much more penetrating interrogation than the common questionnaire."

Other criticisms of the Q Sort technique are based primarily on how it is used. In this study, there was no comparison between "self" sort and "ideal" sort, thus any invalidity caused by this comparison is irrelevant. All children involved were in a normal school and not undergoing any therapy and, therefore, any influence that unconscious "sets" might have on the Sort were also minimized. The literature suggests that individuals undergoing therapy generally have psychological problems and that these problems may unconsciously manifest themselves in the way the participant sorts the statements; for example, a person with an inferiority complex may tend to sort all the negative statements as being like them and positive statements as being unlike them.



Each subject was given a card measuring 23 cm. by 30 cm., on which was glued five small pockets. The pockets were labelled, from left to right, as follows: "Most like me", "Quite like me", "Not sure if like or not like me", "Quite unlike me", and "Most unlike me".

The children sorted the prepared statements (which had been typed on individual cards) and placed each card in a pocket so that the danger of knocking them or incorrectly sorting them was reduced. The task of controlling for honesty, natural modesty, social desirability or culture was not undertaken, as it seemed impossible to do.

Each form contains 26 statements representing either an "adequate" or an "inadequate" self concept. A panel of experts examined both forms and decided individually whether a statement was representative of an "adequate" or "inadequate" self concept. (No help was given to any of them and no discussion was allowed.) The experts were required to rate each statement on both forms. The panel was made up of:

Three teachers;

Three principals;

Two professors of education; and

Two professors of physical education.

#### Rating of Q Sort Statements

The statements from both forms were thus rated as adequate or inadequate by a panel of experts. In only one case (Statement 5, Form 1) did the ratio drop to 70-30, and this statement could be considered rather ambiguous. It reads "It makes me feel good to be praised when I've done



something well."

Since rating of the statements were so conclusive, they were used with confidence to ascertain the raw scores for the two groups involved.

Each statement was represented by the children on a scale of being "most like me", "quite like me", "not sure if like or not like me", "quite unlike me", and "most unlike me". Positive values were assigned to each card sorted into these categories in agreement with the experts, and negative values were assigned to those cards categorized in disagreement with the experts. Those cards rated as "adequate" by the experts should appear under the "quite like me" or "most like me", while those rated as "inadequate" should appear on the other side of the continuum. The scoring system was as follows:

A) For statements rated as representing an "adequate" self concept by the experts:

"Most like me" = +2

"Quite like me" = +1

"Not sure if like or not like me" = 0

"Quite unlike me" = -1

"Most unlike me" = -2

B) For statements rated as representing an "inadequate" self concept by the experts:

"Most like me" = -2

"Quite like me" = -1

"Not sure if like or not like me" = 0

"Quite unlike me" = +1





"Most unlike me" = +2

### Lesson Plan Construction

A study of various learning theorists was undertaken and a suitable theory was selected. The theorists involved were J. Bruner, J. Piaget, B. F. Skinner, B. S. Bloom, R. Gagne, and J. J. Rousseau. It was decided that the learning theory of R. Gagne was most suitable for this area of education, because it outlines the necessary steps to be taken in designing the unit. It also encourages specification of the entry and terminal behaviour in behaviouristic terms and represents an efficient instructional procedure. Moreover, it allows for all desirable elements of physical education and specifies the conditions necessary for transition to higher levels of learning.

Gagne's theory can be used not only to plan a unit, but also the individual lessons of that unit and, therefore, the three most vital elements of education: planning, instruction, and evaluation, are incorporated into one theory, making it extremely versatile.

Continuous evaluation is made easier with the use of a behaviouristic theory; however, Gagne makes evaluation even more meaningful since, if the unit and the lessons have been planned properly, the teacher at any moment in time should be able to identify not only the level in the unit, but also the level in the lesson that any particular child is operating at.

Using what Gagne (1973) calls the "common sense logic" approach, a "scope and sequence" chart was constructed (see



Appendix B). The "common sense logic" approach, according to Gagne, is an approach where a definite terminal behaviour is established and then, using "common sense" and "logic" one breaks down the objective into the components necessary to execute it, stating them behaviouristically. One then breaks down each of those components into the parts necessary to execute it and so proceed down the hierarchy, each step logically preceding the higher step, until the entry level of the child is reached.

The terminal objective for this unit was a complex dance drama which was stated behaviourally as a sequence (see Appendix B), and the entry behaviour specified was that children could distinguish between movement and stillness, between free flow and bound flow, between pathways and between directions (in Gagne's theory "distinguish" means know the difference between; they do not have to be able to articulate the differences, but must be able to demonstrate them).

The scope and sequence chart identifies 16 levels, each level constituting one lesson. Lesson or level 16 was the final lesson (most complex) and level 1 was the first lesson (least complex).

Instruction proceeds up the hierarchy (the exact opposite of planning which goes down the hierarchy), and the terminal behaviour for each lesson becomes the entry behaviour for the next lesson. It is imperative therefore that the planning sequence is done carefully and accurately, so that the lessons are in fact sequential.



For the planning of the lessons, Gagne applies his levels of learning, starting at level 5 (discrimination). According to Gagne, most children entering school are capable of discriminating (between objects, for example). Each lesson covers the range of learning levels from discrimination (entry level) to problem solving (terminal behaviour), that is, from level 5 to level 8.

By using Gagne's theory it becomes possible to make the unit of lessons sequential, thus making sure the lessons progress up the hierarchy toward the final terminal objective.

The lessons were planned directly from the scope and sequence chart with the main emphasis placed on "body awareness" and "relationships". The key to the scope and sequence chart lies in the descriptors of each level of learning (according to Gagne, 1973).

Generates is the highest level and involves original thinking, that is putting different types of movement and shapes together to form a sequence.

Demonstrates is the second highest level and involves using different types of movements or shapes.

Clarifies is the third highest level and involves classifying different types of movements or shapes.

Identifies is the fourth highest level and involves recognition of types of movement or shapes (usually articulated).

Discriminates is the lowest level of learning and involves choosing between two different types of movement or shapes (Gagne, 1973).





Therefore, since "body awareness" and "relationships" have "generates a sequence" as their descriptor; that is where the emphasis was placed. Sequences generated in "body awareness" were also taken into a group setting under "relationships" where other sequences were generated. The emphasis was placed on body awareness and relationships deliberately, as this was thought more likely to help develop the two major aspects of self concept: perception of self, and perception of self in the light of others' reactions.

According to the children involved and the cooperating teacher, the children had had little or no previous movement training and, therefore, a thematic or guided discovery approach was quite frequently used. Improvisations were also used as climaxes to the lessons, and music was frequently used as a stimulus, especially when a particular effort quality was required.

Although the emphasis was not on movement form per se, poor quality work was not accepted by the instructor; in fact, the children were encouraged to take pride in their sequences. The emphasis, however, was placed on a movement experience for the students, rather than demanding a polished performance of each sequence. The decision to emphasize movement experience was based on two considerations:

- A) Time: There were only 16 half hour periods available.
- B) Internalization: To effect a change in self concept, feelings must be internalized and it was felt that too much emphasis on form (in such a short time) may hinder any



immediate experiences for the children.

Having administered the pretest and formed the control and treatment groups, a meeting was held with the principal and teachers involved, in order to schedule classes and facilities in such a way that the cooperating teacher could teach both groups twice a week. This was in fact achieved, although it meant that one movement education lesson had to be taught in the music room and one lesson in the classroom. The problem of facilities was compounded by the fact that the elementary school was sharing the facilities of a junior high school, while a new school was being built for them. This meant that the gymnasium was not readily available.

The lesson plans for the movement unit were checked by a number of experts in the field of education before they were taught in the school, and they were taught by the regular physical education teacher, who also taught games lessons to the control group. The writer observed the teaching of both groups, and kept a record of observations for the duration of the experiment.

The games lessons were part of a previously prepared unit on games skills that the cooperating teacher had prepared and was using; the teacher continued to teach this unit to the control group for the experimental period.

By having the regular teacher teach the lessons, it was believed that the "Hawthorne" effect of something new or different would be kept to a minimum; this strategy also eliminated the effect of a "new" teacher.

The unit was started exactly eight weeks before the



Easter vacation and on the day following the sixteenth lesson (two days before the vacation), the posttest was administered to all the children simultaneously.

Although the unit was not completed (the lesson plans were longer than anticipated), the children had been exposed to movement education for 16 lessons when the posttest was administered. The decision to administer was based on two factors: the ten day break as a result of the vacation, and the fact that upon their return from vacation, the children would go to the new school. It was felt that to finish the unit and test after the vacation and in new surroundings would introduce two very strong intervening variables which could not be controlled for.

#### Treatment of Data

- 1) Each form of the Q Sort was tabulated along with the percentage of professionals rating each statement as "adequate" or "inadequate".
- 2) All raw scores for each subject (pretest and posttest) were presented in tabular form.
- 3) Means for (a) whole group (A and B)
  - (b) group A
  - (c) group Bwere calculated for pretest scores. Both group A and B were presented and summarized in tabular forms.
- 4) Analysis of covariance was prepared for posttest scores using the pretest scores as the covariate.
- 5) Means for (a) whole group (A and B)
  - (b) group A



(c) group B

were calculated for posttest scores. Both group A and B were presented and summarized in tabular form.

- 6) A comparison of means for groups A and B in the pretest and posttest was tabulated.
- 7) A comparison of the number of zero scores on pretest and posttest was calculated.

An analysis of covariance was chosen to evaluate the results, since the influence of uncontrollable variables is usually removed by a simple linear regression method. The analysis of covariance is:

"A statistical rather than an experimental method, and may be used to 'control' or 'adjust' for the effects of one or more uncontrolled variables, and permits thereby a valid evaluation of the outcome of the experiment." (Ferguson, 1966, p. 326)





## CHAPTER IV

### RESULTS AND DISCUSSION

The purpose of this chapter is to present and discuss the results of the study. This chapter has been divided into the following sections: results of Q Sort statement rating; mortality; raw data; results of analysis of covariance; and summary.

#### Results of Q Sort Statement Rating

The results of the experts' rating of Q Sort statements are summarized in Table I. It is of interest to note that the experts were in 100% agreement on the rating of 18 of the 26 statements in Form 1, and 23 of the 26 statements in Form 2.

#### Mortality

Fifty four students were given the pretest. These students were then matched into 27 pairs. If one partner missed the posttest, the other partner was automatically discounted too. The result was that pretest and posttest scores were only obtainable for 18 of the original pairs. This means that there was a differential mortality of 33.33%. A mortality rate of this magnitude is extremely important in such a small sample, as the effects of the treatment have to be a great deal stronger in order to be detected.

The mortality was differential in nature, as 6 members of the treatment group, and 3 members of the control group missed the posttest. Consequently their corresponding partners also had to be discounted.



TABLE I  
EXPERTS' RATING OF Q SORT STATEMENTS

STATEMENT #	FORM 1			FORM 2		
	Adequate	Inadequate	Final Rating	Adequate	Inadequate	Final Rating
1	90%	10%	A	0%	100%	I
2	0%	100%	I	0%	100%	I
3	0%	100%	I	90%	10%	A
4	100%	0%	A	0%	100%	I
5	70%	30%	A	100%	0%	A
6	0%	100%	I	100%	0%	A
7	20%	80%	I	0%	100%	I
8	100%	0%	A	0%	100%	I
9	0%	100%	I	100%	0%	A
10	90%	10%	A	100%	0%	A
11	80%	20%	A	100%	0%	A
12	100%	0%	A	0%	100%	I
13	100%	0%	A	80%	20%	A
14	0%	100%	I	100%	0%	A
15	0%	100%	I	0%	100%	I
16	90%	10%	A	100%	0%	A
17	0%	100%	I	0%	100%	I
18	0%	100%	I	0%	100%	I
19	100%	0%	A	100%	0%	A
20	100%	0%	A	0%	100%	I
21	10%	90%	I	0%	100%	I
22	100%	0%	A	100%	0%	A
23	0%	100%	I	100%	0%	A
24	100%	0%	A	0%	100%	I
25	10%	90%	I	100%	0%	A
26	0%	100%	I	0%	100%	I



## Raw Data

The total raw scores for pretest and posttest for each individual are summarized in tabular form, along with the changes recorded from pretest to posttest (see Appendix C). The change in the control group mean was a decrease of 0.17 points only, although changes within the group ranged from an increase of 29 points to a decrease of 43 points. The experimental group mean showed a decrease of 3.22 points from the pretest scores, which was considerably more than the control group. In the experimental group, changes ranged from an increase of 28 points to a decrease of 27 points.

In the control group, 9 subjects scored lower on the posttest, of which 5 were girls and 4 were boys, while in the experimental group, 11 subjects scored lower on the posttest than in the pretest, of which 6 were girls and 5 were boys.

In the control group, the boys were responsible for an overall decrease of 59, while the girls were responsible for an overall decrease of 53. In the experimental group, however, the girls were responsible for an overall decrease of 11, while the boys were responsible for an overall decrease of 47. These figures tend to suggest that sex may well be a factor and, therefore, it is worth examining the scores in the light of this variable. Table II is a comparison of the mean scores of the boys in both groups, while Table III compares the mean scores for the girls. Table IV is a comparison of whole group means.





TABLE II  
COMPARISON OF MEANS: BOYS

	Pretest	Posttest	Change
Control	25.9	31.0	5.1
Experimental	19.43	12.71	-6.62

TABLE III  
COMPARISON OF MEANS: GIRLS

	Pretest	Posttest	Change
Control	20.25	13.63	-6.72
Experimental	21.82	20.82	-1.0

TABLE IV  
COMPARISON OF MEANS: WHOLE GROUP

	Pretest	Posttest	Change
Control	23.39	23.22	-0.17
Experimental	20.89	17.67	-3.22

From Tables II and III it can be seen that the mean posttest scores of the boys in the control group increased by 5.1, while the mean posttest scores of the girls decreased by 6.62.



The same Tables (II and III) also show that the mean posttest scores of the boys in the experimental group decreased by 6.72, while the girls' mean posttest scores showed a decrease of only 1.0.

Table IV shows that both the experimental and the control group had a slight downward trend, although that of the control group was so small ( $-0.17$ ) as to be negligible. An interesting question is raised by this downward trend, the question of where the changes in scores came from. In the control group there was a slight decrease in the +2, -1, and -2 categories, the +1 category remained stable, while the zero category showed a slight increase (see Table V). The control group actually remained extremely stable in terms of the frequency distribution of scores. The ideal situation would have been to have all totals remain unchanged from pretest to posttest.

The experimental group, however, showed some quite dramatic changes, the most obvious changes being in the +2 responses and in the zero responses (see Table VI).



TABLE V

FREQUENCY DISTRIBUTION TABLE FOR CONTROL GROUP - PRETEST/  
POSTTEST RAW SCORES

State -ment #	+2		+1		0		-1		-2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	3	11	3	6	1	0	9	1	2	0
2	15	7	2	2	1	7	0	0	0	2
3	9	10	8	6	1	1	0	0	0	0
4	6	7	7	7	4	2	1	1	0	1
5	10	8	7	5	1	1	0	1	0	3
6	2	7	2	4	3	5	4	1	7	1
7	5	4	6	6	4	4	3	2	0	2
8	6	8	10	7	2	0	0	2	0	1
9	6	4	6	6	6	4	0	2	0	2
10	5	10	9	4	1	3	3	1	0	0
11	7	8	8	5	2	4	1	0	0	1
12	12	3	5	5	0	3	1	5	0	2
13	5	11	9	5	3	1	1	1	0	0
14	9	12	6	5	2	0	0	0	1	1
15	6	7	5	6	4	4	2	1	1	0
16	7	7	9	7	2	2	0	2	0	0
17	0	9	4	4	6	1	2	2	6	2
18	9	7	6	1	2	3	1	6	0	1
19	6	5	5	7	4	5	2	0	1	1
20	10	5	6	8	0	3	0	2	2	0
21	4	5	6	6	1	1	4	4	3	2
22	10	6	6	8	0	3	1	1	1	0
23	8	5	6	10	2	2	2	0	0	1
24	8	7	7	10	1	1	1	0	1	0
25	10	3	2	6	3	6	1	0	2	3
26	7	7	0	4	5	2	3	2	3	3
Totals	185	183	150	150	61	68	42	38	30	29



TABLE VI

FREQUENCY DISTRIBUTION TABLE FOR EXPERIMENTAL GROUP - PRETEST/  
POSTTEST RAW SCORES

State -ment #	+2		+1		0		-1		-2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	1	7	6	8	5	2	5	1	1	0
2	14	1	2	5	2	9	0	1	0	2
3	8	7	7	8	1	1	1	0	1	2
4	5	6	5	6	8	4	0	2	0	0
5	14	4	1	9	2	5	1	0	0	0
6	1	4	3	5	1	7	5	1	8	1
7	3	4	7	5	3	6	4	2	1	1
8	11	7	3	5	2	4	1	1	1	1
9	4	1	8	7	3	5	1	1	2	4
10	6	4	7	7	3	4	1	1	1	2
11	6	4	9	6	3	8	0	0	0	0
12	8	4	8	2	1	2	1	4	0	6
13	7	3	7	7	2	8	1	0	1	0
14	9	5	6	5	2	7	1	1	0	0
15	10	8	2	6	4	4	2	0	0	0
16	11	5	3	6	3	5	1	2	0	0
17	3	6	4	6	5	5	5	0	1	1
18	5	12	7	2	4	0	1	1	1	3
19	4	4	3	5	5	7	4	2	2	0
20	4	8	7	5	6	3	0	1	1	1
21	6	3	5	4	2	6	3	1	2	4
22	5	3	9	10	4	4	0	1	0	0
23	1	5	8	6	1	6	8	1	0	0
24	7	5	7	10	3	1	0	2	1	0
25	9	2	6	10	2	4	1	1	0	1
26	6	2	5	5	1	5	2	4	4	2
Totals	168	124	145	160	78	122	49	31	28	31





Table VII is a comparison of the scores filed (in agreement with the judges) in the "most like" or "most unlike me" categories.

TABLE VII  
COMPARISON OF +2 RESPONSES

Group	Pretest %	Posttest %	Change %
Control	39.53	39.10	-0.43
Experimental	35.90	26.50	-9.4

The table shows that in both pretest and posttest, the +2 responses comprised over 39% of the total responses of the control group, while the experimental group posttest score dropped by 9.4%, so that it comprised 26.5% of the total response. The indication here is that children in the experimental group are now less definite about what is very like or unlike them.

Table VIII compares the +1 responses: these responses are filed (in agreement with the judges) in the "quite like" or "quite unlike me" categories.

TABLE VIII  
COMPARISON OF +1 RESPONSES

Group	Pretest %	Posttest %	Change %
Control	32.0	32.0	0
Experimental	30.98	34.19	+3.21



In this category, the control group remained stable at 32.05% of the total response, while the experimental group's score increased by 3.21% from pretest to posttest. This table leads one to believe that the experimental group were beginning to question their concept of themselves. The experimental group's dramatic increase (9.4%) in the "not sure if like or not like me" response category (see Table IX) also adds substantially to the idea that the experimental group were in a process of questioning their self concept.

TABLE IX  
COMPARISON OF O RESPONSES

Group	Pretest %	Posttest %	Change %
Control	13.03	14.53	+1.5
Experimental	16.67	26.07	+9.4

The relatively small change in the control group's score in this category is also a supporting factor, since the relative stability of the control group in a category where indecision by the groups would logically appear tends to indicate that the indecision might be caused by the treatment.

Table X is a comparison of statements filed in the "quite like" or "quite unlike me" categories, but in disagreement with the judges. The decrease in scores in both groups in this category indicates a decrease in the



incorrectly filed statements; this shift is once again more pronounced in the experimental group.

TABLE X  
COMPARISON OF -1 RESPONSES

Group	Pretest %	Posttest %	Change %
Control	8.97	8.12	-0.85
Experimental	10.47	6.62	-3.85

An examination of Table XI shows that in the control group there was a slight decrease in that category too, while the experimental group had a slight increase.

TABLE XI  
COMPARISON OF -2 RESPONSES

Group	Pretest %	Posttest %	Change %
Control	6.41	6.20	-0.21
Experimental	5.98	6.62	+0.64

The experimental group's increase in the number of wrongly filed responses (in the "most like" or "most unlike me" categories) is not nearly enough to account for the shift from the -1 category and, therefore, there had to be a shift into another category. The dramatic increase in the 0 or "not sure" category suggests a very strong centralizing of the scores (Table VI) and this is supported by the large decrease in the +2 scores and the decrease in -1 scores.





The same tendency is in evidence in the control group, although the trend is not nearly as strong. The past several paragraphs would seem to suggest a significant treatment effect of a negative sort. To test the hypothesis of a statistically significant treatment effect, an analysis of covariance with the pretest as the covariate was performed on the posttest.

### Analysis of Covariance

The analysis of covariance is reported below in three steps: 1) test of the homogeneity of variance; 2) the test of the homogeneity of regression; and finally 3) the analysis of covariance.

1) The Bartlett-Box test of homogeneity showed no significant difference in the variances of the unadjusted group means (Probability = .16).

2) The prediction equations for posttest from pretest scores were then calculated. The equation for the control group was

$$Y = .610X + 9.00$$

and the equation for the experimental group was

$$Y = .498X + 7.83$$

where Y = posttest score and X = pretest score.

The Bartlett-Box test of homogeneity of regression once again showed no significant difference (Probability = .78) between the equations.

3) The General Mean Estimate was 8.63 and the Group Effect Estimate for the control group was +1.84, while the experimental group's was -1.84, giving adjusted group means



of 10.47 for the control group and 6.79 for the experimental group.

These figures indicate an increase in scores by the subjects of the control group and a decrease in scores as a result of the effect of the treatment. However, the difference in means was still not significant (Probability = .44). The adjusted within group variance vector was extremely high, 282.56 for the control group and 123.63 for the experimental group. The very high within group variance (see Appendix C) was the main reason that the between group variance was not more significant, as the higher the variance gets, the stronger the effects of the treatment must be to counteract it.

### Summary

The partial obscuring of the treatment effect by the large error variance (within group variance) resulted in findings that were not statistically significant. However, that does not mean that the findings are not important. There is a very strong centralizing tendency of the experimental group (see Table VI); moreover, the boys were responsible for a major part of the decrease in the experimental group's mean (see Table II). Although the experimental group's girls' scores dropped (see Table III), the drop was not nearly as large as the drop experienced by the control group girls.

Since the control group was being taught games skills (volleyball skills mostly), it is possible that girls of this age are not generally in favour of team sports and may



not like being placed in a situation which is potentially competitive. The boys in the control group showed a high increase in scores (see Table II), and this may be because boys of this age enjoy team games and may actually thrive on being placed in situations which are potentially competitive. The final result was a slight drop in the control group mean and a larger drop in the experimental group mean.

To conclude, although the effects of the treatment were not statistically significant, they were nonetheless of interest and indicate some interesting trends.



## CHAPTER V

### OBSERVATIONS, RECOMMENDATIONS AND SUGGESTIONS FOR

#### FURTHER RESEARCH

This chapter has been divided into four parts: observations, summary, general recommendations, and recommendations for further research.

#### Observations

From observing the lessons taught to the treatment group, the writer came to believe that in general the girls seemed to accept movement education more willingly than the boys. For example, the girls were willing to demonstrate their sequences as early as lesson 4, while the boys did not volunteer to demonstrate their sequences until lesson 8; although, when persuaded, one group of boys demonstrated a very short sequence in lesson 6.

The writer also observed that the boys' obvious embarrassment in the early stages of the unit would be alleviated only by spending considerable time developing their trust, especially if the classes were mixed.

These observations agreed completely with those of the cooperating teacher, who has an excellent background in educational gymnastics, creative dance, and elementary physical education in general. The fact that the teacher was male was not considered in this study, as all the children knew him and, in the writer's opinion, had a good rapport with him.

The writer and the cooperating teacher did, however, have several informal discussions as to what elements would





maximize the effect of movement education; the recommendations may be summarized as follows:

- 1) While an extensive background in movement training was not essential to teach this unit, some knowledge of Laban's movement analysis would be extremely beneficial.
- 2) An interest and a belief in the benefits of movement is paramount.
- 3) Bearing in mind points number 1 and 2, the sex of the teacher is not important, provided that the teacher is confident and has the respect and trust of the children. It was recognized, though, that a male teacher may be able to develop the trust and respect of an all boys class quicker than a female teacher, but, since this study is concerned with the effects of movement education on elementary school children, where the physical education classes are not segregated, this particular variable was not considered to be a factor.

The centralizing tendency of the responses of the treatment group indicates that movement education does have an effect on student self concept and, although the effect is not statistically significant, it is nevertheless notable. The fact that the trend is towards the "not sure" category indicates a self questioning trend by the experimental group children (see Table VI). When this trend is viewed in the light of the comments made by the cooperating teacher regarding the movement lessons (Appendix D) and the comments made by the children (Appendix E), one may deduce that the children were tested too early and that they had not been



exposed to movement education for a long enough period to start improving their self concept scores. Further support for this deduction comes from Allport (1961) and Rogers (1951) who believe that changes in self concept, while possible, are often difficult and are time consuming.

The general comments of the children (Appendix E), along with the writer's observations of the children's reactions in the lessons, lead to the belief that the children enjoyed movement education, and that the use of improvisations as a climax to the lesson was particularly appealing to them.

Based on observations of the lessons, the writer also contends that it is of utmost importance to concentrate on the quality of movement (as opposed to merely accomplishing the task), as well as the experience it provides. Support for this contention comes from Dauer and Pangrazi (1975), who claim that "... success can be achieved only through good effort. The child that doesn't 'put out' is selling himself short." (p. 62)

The writer also felt that the lessons of the unit were too long, this became obvious when the climax or culminating activity often had to be carried over to the next lesson. With a group of children who have considerable experience in movement education, this may not be a problem but, when introducing movement education to a class for the first time, the writer believes that each lesson should be self contained, that is, the climax should be a part of it, and not carried over to the next lesson.



The comments of the children (Appendix E) and the observations of the writer and cooperating teacher showed that music was an excellent stimulus. It was also apparent that the children needed a large area to explore fully the movement potential of the situation represented by the music. Pathways and speed could not be completely and freely explored within the confines of a music room or any standard classroom. The lack of space also contributed to the difficulty in planning and practising sequences, particularly in group work. It appears then that contrary to what some teachers may think, movement education needs the space of a gymnasium and cannot be completely and successfully done in a classroom, unless one wishes to sacrifice maximum involvement. Where children have to work in too close a proximity to each other and where children cannot fully explore variations in pathways and speed without bumping into one another, there is a strong possibility of interference and lack of concentration on the task in hand.

Observing the children's progress through the unit, the writer concluded that there was a definite improvement in the integration of the boys and girls; this was evidenced by their voluntarily forming groups of both sexes. Admittedly this was only in the latter half of the unit; however, the children began to cooperate (without being told) as early as lesson 4. The cooperation was evidenced by the voluntary coaching of each other.

The children also began to focus more on detail as they progressed through the unit; for example, in lesson 7 the





children were introducing a variety of levels, shapes and pathways in order to improve their sequences. This was done without any prompting from the teacher at all.

Finally, the children's response to and participation in the later lessons in the unit led to the deduction that more time could have been profitably spent on relaxation and trust development exercises, so that the group could relax with each other prior to starting movement education itself. This observation is also supported by statements from some of the children. One other deduction arrived at (partly on the basis of observation and partly on the basis of discussion between the writer and the cooperating teacher) was the fact that the movement experiences presented to the children during this study may enrich physical education but should not replace it. This was evidenced by a noticeable deterioration of concentration and interest in the unit by the children. Since the treatment group were receiving two lessons a week of movement education (as defined by this study) and no games or track and field, and the control group were receiving two lessons a week of games skills and no movement education, the writer and the cooperating teacher felt that neither group was getting a balanced and varied program.

#### Summary of Observations

Based on the writer's observations of the lessons, the cooperating teacher's comments, the children's comments and the above discussion, the observations may be summarized in point form as follows:



- 1) Grade 6 girls accept movement education better than boys.
- 2) Movement education causes children to question their concepts of themselves.
- 3) Grade 6 children enjoy movement, particularly in the form of improvisations.
- 4) The lessons of the unit were too long for the average class period.
- 5) A large floor area is needed to teach movement education properly.
- 6) Music makes an excellent stimulus.
- 7) Grade 6 boys and girls appear to integrate better doing movement education than they do in a games skills lesson situation.
- 8) Movement education develops cooperation in Grade 6 children.
- 9) Movement education provides opportunities for children of all skill levels to succeed.
- 10) Movement education develops thinking about the task.
- 11) Children need to experience the pride and satisfaction of a piece of work well done, as well as experience success in movement.
- 12) Teaching movement education in long blocks of successive lessons could lead to boredom in the children, and a consequent drop in level of performance.

#### General Recommendations

The introduction of movement education to a class or school should be done carefully; care must be taken to ensure that the children relax and realize that the situation is a



non-judgmental one. This does not mean non-evaluative, but means that the children must realize that they are not going to be exposed to ridicule, either by their teachers or their peers.

Movement education, as the name implies, deals with movement and therefore adequate space should be provided in order that movement may be explored to its fullest potential.

Another area of concern is the spacing and time aspect; approximately thirty five minutes of activity time per session is needed and should be either interspersed with the rest of the program, or taught in small self-contained units (8 to 10 lessons). However, the teacher must be aware of the dangers of "dabbling", by which the writer means making either a half hearted attempt to teach movement, or only teaching it for a short time in order to have it included in the program. The dangers of "dabbling" are obvious if, as the writer believes, movement education causes children to re-evaluate their self concepts; it would be futile to make the children start asking these searching questions and then not provide the opportunity for them to answer the questions, hopefully in a positive way.

Interspersing the movement lessons or small blocks or lessons, with other physical education lessons has all the advantages offered by movement education (the development of awareness of themselves and of others), without the children becoming bored with it.

Finally, the teacher should use whatever methods are required to stimulate and challenge the children involved,



and should not accept mediocre performances of sequences, or the children will miss one of movement's most vital aspects - that of pride in a sequence well done.

### Suggestions for Further Research

- 1) Repeat this experiment with larger numbers of children and over a longer period of time.
- 2) Conduct similar studies:
  - a) observing the effects of movement on the different sexes.
  - b) with children of different age groups.
  - c) observing the effects of varying amounts of floor space on the self concept scores.
  - d) observing the effects of movement education on children of differing physical and mental abilities.
  - e) observing the effects of movement education when taught by teachers of different sexes.
- 3) Examine the hypothesis that movement education causes a change in distribution of self concept Q Sort responses in children.





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APPENDIX A  
Q SORT FORMS





Form 1

1. Things don't usually bother me.
2. I'm really dumb.
3. I am usually a sad person.
4. Others know they can trust me.
5. It makes me feel good to be praised when I've done something well.
6. It bothers me when I think others are talking about me.
7. I don't try as hard as I should.
8. I am usually a happy person.
9. I usually go along with what others want or say even if I'm not sure they're right.
10. I never give up until I've really tried as hard as I can.
11. I'm really pretty smart.
12. I'm sorry when our team is losing but I keep right on rooting for them.
13. I'm good at most things I try to do.
14. I don't think others can trust me.
15. I often think I'm really just no good.
16. I'll grow up to be somebody good.
17. Even when people tell me I've done something well, I'm not sure I have myself.
18. No matter what I try, I don't seem to be much good at it.
19. I make a good leader or captain.
20. I don't care what others say about me as long as I know I'm doing the right thing.
21. It seems somebody is always pushing me around.
22. Others can't talk me out of it once I know I'm right.
23. I get mixed up.
24. I usually know why I do things.
25. I don't have many good friends.
26. I'm a real worrier.



Form 2

1. I can't do anything right.
2. If I could make myself over, I'd be completely different.
3. I can take it O.K. if my team loses.
4. Others don't choose me to be on their side because I'm not much good at anything.
5. I am pretty much content with the way I am.
6. I can take things just as they come.
7. I think others really don't like me very much.
8. I just don't really like myself.
9. I can go ahead and do things without worrying about what somebody else is going to say about me.
10. I have a right to be proud of myself.
11. I am a person others can count on.
12. It seems to me I always have something to worry about.
13. I know inside myself I'm really a good person.
14. When I know I'm right I stick to it.
15. I can't do well in school because I'm not smart enough.
16. If I do something I have a good reason for it.
17. I often feel ashamed.
18. Others are always picking on me or teasing me.
19. I usually get picked by others to be on their side because I'm pretty good at most things.
20. Others can't count on me because I don't always come through.
21. I worry about what others might say about me.
22. I can do good work in school because I've got the brains.
23. I can keep at things until they get done.
24. I give up too easily.
25. I can be the one who starts things and gets them going.
26. I give in to other people easily.



APPENDIX B

SCOPE AND SEQUENCE CHART



	RELATIONSHIPS	SPACE AWARENESS	BODY AWARENESS	EFFORT
16	<u>WHOLE CLASS</u> DANCE DRAMA DRAMATIC RELATIONSHIPS	DEMONSTRATING USE OF PATHWAYS DIRECTIONS LEVELS	DEMONSTRATING USE OF BODY SHAPES DIFFERENT BODY PARTS LEADING BODY FUNCTION MOVEMENT & STILLNESS FOCUS WITH EYES AND BODY	DEMONSTRATING USE OF CONTRASTING EFFORT QUALITIES
COMPLEX				
15	<u>WHOLE CLASS</u> DANCE DRAMA DRAMATIC RELATIONSHIPS	DEMONSTRATING USE OF PATHWAYS DIRECTIONS LEVELS	DEMONSTRATING USE OF BODY SHAPES DIFFERENT BODY PARTS LEADING BODY FUNCTION MOVEMENT & STILLNESS FOCUS WITH EYES AND BODY	DEMONSTRATING USE OF CONTRASTING EFFORT QUALITIES
COMPLEX				
14	<u>LARGE GROUP</u> GENERATES A SEQUENCE DRAMATIC RELATIONSHIPS	DEMONSTRATING USE OF A CHANGE IN: PATHWAY LEVEL DIRECTION	DEMONSTRATES A SEQUENCE DEMONSTRATES DIFFERENT BODY SHAPES CLARIFIES FOCUS EYE BODY	DEMONSTRATING CONTRAST IN AT LEAST TWO OF EFFORT QUALITIES
13	<u>PAIRS OR TRIOS</u> GENERATES A SEQUENCE DRAMATIC RELATIONSHIPS	DEMONSTRATES USE OF A CHANGE IN: PATHWAY LEVEL DIRECTION	GENERATES A SEQUENCE INVOLVING: BODY SHAPES FOCUS CLARIFIES FOCUS EYE BODY	DEMONSTRATES CONTRAST IN AT LEAST TWO OF EFFORT QUALITIES





RELATIONSHIPS	SPACE AWARENESS	BODY AWARENESS	EFFORT
12	<u>LARGE GROUP</u> GENERATES SEQUENCE DRAMATIC RELATIONSHIPS	GENERATES SEQUENCE DEMONSTRATING BODY SHAPES	DEMONSTRATES CONTRAST IN LIGHT & HEAVY SUDDEN & SUSTAINED CLARIFY SLOW & QUICK STRONG & WEAK
11	<u>PAIRS OR TRIOS</u> GENERATES SEQUENCE MIMETIC RELATIONSHIPS ONE OF COPYING MIRRORING MATCHING	DEMONSTRATES USE OF LEVELS PATHWAYS DIRECTIONS	DEMONSTRATES USE OF CONTRASTS IN SLOW - QUICK STRONG - WEAK CLARIFIES: LIGHT - HEAVY SUDDEN - SUSTAINED
10	<u>LARGE GROUP</u> GENERATES SEQUENCE DRAMATIC RELATIONSHIPS	DEMONSTRATES: LEVELS PATHWAYS DIRECTIONS	DEMONSTRATES USE OF EFFORT QUALITY
9	<u>PAIRS OR TRIOS</u> GENERATES SEQUENCE MIMETIC RELATIONSHIPS MATCHING	DEMONSTRATES: PATHWAYS LEVELS CLARIFIES DIRECTIONS ROUND ANGULAR WIDE NARROW TWISTED	DEMONSTRATES USE OF EFFORT QUALITY



RELATIONSHIPS	SPACE AWARENESS	BODY AWARENESS	EFFORT
8 <u>LARGE GROUP</u> GENERATES SEQUENCE DRAMATIC RELATIONSHIPS	DEMONSTRATES CHANGE IN PATHWAYS LEVELS	GENERATES SEQUENCE CLARIFIES ROUNDED ANGULAR IDENTIFIES    WIDE NARROW TWISTED	DEMONSTRATES USE OF ONE EFFORT QUALITY
7 <u>PAIRS OR TRIOS</u> GENERATES SEQUENCE MIMETIC RELATIONSHIP DEMONSTRATES COPYING AND MIRRORING	DEMONSTRATES USE OF PATHWAYS LEVELS	GENERATES SEQUENCE DISCRIMINATES BETWEEN BODY SHAPES	DEMONSTRATES USE OF ONE EFFORT QUALITY
6 <u>SMALL GROUP</u> SPATIAL RELATIONSHIPS MEETING & PARTING ABOVE & BELOW NEAR & FAR	DEMONSTRATES USE OF PATHWAYS LEVELS	GENERATES SEQUENCE DISCRIMINATES BODY SHAPES	DEMONSTRATES USE OF ONE EFFORT QUALITY
5 <u>PAIRS OR TRIOS</u> GENERATES SEQUENCE SPATIAL RELATIONSHIPS SPLITTING LINKING PARTING	DEMONSTRATES USE OF PATHWAYS LEVELS	GENERATES SEQUENCE DEMONSTRATES CONTRAST IN MOVEMENT AND STILLNESS	DISCRIMINATES BETWEEN LIGHT & HEAVY SLOW & QUICK SUDDEN & SUSTAINED STRONG & WEAK



RELATIONSHIPS	SPACE AWARENESS	BODY AWARENESS	EFFORT
4	<u>SMALL GROUP</u> GENERATES SEQUENCE SPATIAL RELATIONSHIPS ABOVE & BELOW NEAR & FAR MEETING & PARTING	CLARIFIES LEVELS  GENERATES SEQUENCE DEMONSTRATES LOCOMOTOR AND NON LOCOMOTOR TRANSITIONS DEMONSTRATES EYE FOCUS BODY FOCUS	DEMONSTRATES CONTRAST IN SPEED (TRANSITIONS) SUDDEN GRADUAL VERY GRADUAL
3	<u>PAIRS OR TRIOS</u> GENERATES SEQUENCE SPATIAL RELATIONSHIPS MEETING & PARTING	IDENTIFIES LEVELS  DISCRIMINATES BETWEEN LOCOMOTOR AND NON LOCOMOTOR TRANSITIONS	CLARIFIES TRANSITION SPEEDS
2	<u>SMALL GROUP</u> GENERATES SEQUENCE SPATIAL RELATIONSHIPS BESIDE & AROUND NEAR & FAR	CLARIFIES PATHWAYS AND DIRECTIONS  CLARIFIES STARTING & FINISHING POSITIONS IDENTIFIES DIFFERENT BODY PARTS LEADING	IDENTIFIES VARIETY OF SPEEDS
1 LESS COMPLEX	<u>PAIRS OR TRIOS</u> GENERATES SEQUENCE MIMETIC RELATIONSHIPS COPYING	IDENTIFIES PATHWAYS AND DIRECTIONS  IDENTIFIES STARTING & FINISHING POSITIONS	IDENTIFIES FLOW FREE & BOUND

\* ENTRY BEHAVIOUR Children can distinguish pathways and directions, free and bound flow, and between movement and stillness.





APPENDIX C

PRETEST/POSTTEST RAW SCORES



<u>CONTROL GROUP</u>					<u>EXPERIMENTAL GROUP</u>				
Subj. No.	Sex	Pre- test	Post test	Inc. (Dec)	Subj. No.	Sex	Pre- test	Post test	Inc. (Dec)
S1	M	0	29	29	S19	F	-18	10	28
S2	F	9	11	2	S20	M	8	16	8
S3	F	9	3	(6)	S21	M	9	2	(7)
S4	F	13	-2	(15)	S22	M	11	-16	(27)
S5	F	15	31	16	S23	F	14	4	(10)
S6	M	21	33	12	S24	F	19	33	14
S7	M	22	21	(1)	S25	F	22	15	(7)
S8	F	23	-20	(43)	S26	F	23	8	(15)
S9	M	24	33	9	S27	F	24	19	(5)
S10	F	25	40	15	S28	F	24	33	9
S11	M	26	14	(12)	S29	M	26	31	5
S12	F	27	21	(6)	S30	F	26	27	1
S13	M	27	41	14	S31	F	27	28	1
S14	M	29	43	14	S32	F	29	17	(12)
S15	M	30	28	(2)	S33	F	30	24	(6)
S16	M	34	16	(18)	S34	M	33	26	(7)
S17	F	41	25	(16)	S35	F	34	15	(19)
S18	M	46	52	6	S36	M	35	26	(9)
Totals:		421	419				376	318	

The experiment started with 27 pairs and where one partner withdrew, the other partner was automatically withdrawn too; thus, at first glance it may appear that the pairs were not well matched, however, the reader should bear in mind that there was a mortality rate of 33.33%.



APPENDIX D  
LETTER FROM COOPERATING TEACHER



"In working with the research unit set up by Les Duxbury I have noticed some growth in self-concept, assuredness and awareness in several of the children. This growth, I feel, is an obvious outcome of a combination of the material in the unit and the children's coping with each other because of the material.

"At the first, getting the children to participate at anything past a superficial level was almost impossible. At first, two or three "outsiders" in the experimental group flatly refused to cooperate. One other student also refused to participate but as the lessons progressed, slowly became involved. This person often really enjoyed the lessons but this really depended upon his emotional makeup that day, not the lessons.

"One student in the class who scored quite low on the first form actively participated in the lessons and really seemed to enjoy it. Towards the end this same student was actually volunteering her group to demonstrate first, which was a real leap forward in confidence for her.

"Many of the children flatly refused to "show" their sequences at first but, as the lessons progressed, more and more of the children got so involved that they wanted to be the "first" to demonstrate.

"I feel that if we had had more time to work through these lessons (at least 3 months) the children would have benefited even more. It seemed that we just had most of the children really involved and enjoying it (which really





surprised some of them) when we called it off and finished it.

"We found that we had to sacrifice lessons and speed up others, because of time restriction and I feel that this detracted from the end results.

"I am now working through the unit with my Grade 4 class, slowly! They are really enjoying it and putting a lot of thought and effort into the group sequence work."

S. B. Burkin

Brander Gardens



APPENDIX E

STUDENTS' REACTIONS TO THE MOVEMENT UNIT



"I think that the program was pretty good. It helped with my hockey even though it has nothing to do with it. There were some good parts and some boring parts, so all together it was good."

"I enjoyed Creative Movement. I think if you had it start out a little more interesting kids would want to do it, instead of just watching the others."

"I liked it because you could express yourself. I liked the program and I don't think you could have improved it."

"I thought that this program in gym was boring at some times during the lessons. There were some parts though that I really enjoyed. I enjoyed the time when we got in our groups and made ragged shapes and round shapes. I think you should have more of it. I also liked the time we closed our eyes and used the leaves. I thought most of the lessons were fun and I wouldn't mind doing it again."

"At first I thought it was boaring but at the end I started to like. I think it was useful and I would like to do it again. I think most of the music was good and I especily liked mohomid aly."

"In the first part then I didn't like it but when we got in to the little plays then it was kind of fun. Some of the music was good."

"When I first started I felt imbassed a little. Then I saw others doing it more freely. I think it was good idea. It was fun."

"I liked doing the plays and I hated doing the dumb pathways. I liked doing that thing where we were prisoners and we had to escape imaginary guards."

"I thought it was kind of dum at first. But at the end it was starting to get fun. I think the whole class should of been in it. I would of been more fun. I thought the plays at the end were the funnest. I think we should have more plays and stuff like that."

"I thought that some off the stuff we did was boring and some was good although I did not do some of them. I thought that the fighting movements were fun and the sneak atacks on the castles where the kings were killed were also fun. Thanks for coming."

"I thought it was fun but it was embarrassing, you could not improve it."





"I liked to do more plays because their fun. I would like to have more music. I think some of my friends and I would like to have more dance. There were a couple of kids who ruined it. But I think it would be alot of fun if it weren't for the kids who ruined."

"I thought that the part towards the end was really fun because I love drama and acting. I kind of liked it at the beginning but I don't like doing the paths. I would of liked a bit more dancing steps in it, but I liked the music. I think it's neet."

"It was OK, I liked the plays the best. And doing things with other people. I wish one hole class was doing it. And not two classes mixed. Music by the Bay City Rollers. And dancing."















**B30152**